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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,611	10/08/2004	Annette J Kim	20967YP	4066
210	7590	05/04/2006	EXAMINER	
MERCK AND CO., INC P O BOX 2000 RAHWAY, NJ 07065-0907			BALLS, ROBERT J	
			ART UNIT	PAPER NUMBER
			1625	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/510,611

Applicant(s)

KIM ET AL.

Examiner

James Balls

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 13-28 is/are pending in the application.
- 4a) Of the above claim(s) 4-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-4 and 13-28 are pending.

Election/Restrictions

2. The December 13, 2005 requirement for restriction is withdrawn as it applies to Groups I and II and is maintained as it applies to Groups III, IV, V and combined Groups I and II. Applicants' arguments are found unpersuasive, as "search burden" is not relevant in determining unity of invention under PCT Rule 13.1. The requirement for restriction is hereby made FINAL.

Claim Rejections - 35 USC § 102(b)

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,332,810 (Belanger et al.). See columns 11-13, Examples 1-5. The compounds of the prior art are derived when R¹ is OR⁴, R⁴ is H, s is 1, R^{1a} is methyl, n is 2, X is a bond, p is 0, V is aryl, R² is H or – (CR^{1b})tOR⁴, t is 0, and R⁴ is either H or methyl. For example, 12-(4-chlorobenzyl)-5,6,7,8,9,10-hexahydro-6,9-(epiminomethano)benzo[α][8]annulen-3-ol is disclosed in U.S. Patent No. 4,332,810 (Belanger et al.) as Example No. 1.

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4. Claims 1-3, and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by Belanger et al., *Preparation and Stereochemistry of 8- and 9-Hydroxy-2,5-ethano-3-benzacines*. CAN. J. CHEM.. 61:2177-2182 (1983). See compounds 6 and 8 on page 2177 and compounds 11 and 15 on page 2178. The compounds of the prior art are derived when R¹ is H, n, p, and q are 0, X is a bond, and V is H or methyl.

5. Claims 1-3, and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by Iddon et al., *Synthesis and Reactions of 2,3,4,5,6-tetrahydro-2,5-ethano-3-benzazocin-4(1H)-one and a thieno-extended analogue: X-ray structure of 3-methyl-2,3,5,6-tetrahydro-2,5-ethanol[1]bezothieno[3,2-d]azocin-4(1H)-one*, J. CHEM. SOC. PERKIN. TRANS. 1(4):1083-1090 (1990). See compounds 6 and 8 on page 2177 and compounds 11 and 15 on page 2178. The compounds of the prior art are derived when R¹ is H, n, p, and q are 0, X is a bond, and V is H or methyl. See page 1085 compounds 24 and 25. The compounds of the prior art are derived when R¹ is H, n, p, and q are 0, X is a bond, and V is H or methyl.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a), which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-4 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,332,810 ("Belanger et al."). The prior art discloses compounds structurally similar to the presently claimed compounds—the only difference being that the prior art is modified with a bioisosteric replacement. Common bioisosteric replacements are disclosed in Patani & LaVoie, *Bioisosterism: A Rational Approach in Drug Design*, CHEM. REV. 96:3147-3176. For example, Example 73 on page 154-155 in the specification contains bromine in position R¹. Example 1 of U.S. Patent No. 4,332,810 ("Belanger et al.") contains a hydroxyl-group in position R¹. Patani & LaVoie bridge this difference by showing that a bromine and a hydroxyl-group function as bioisosteres, thereby motivating one skilled in the art to make the modification with a reasonable expectation that the two compounds will have similar activity. See Patani & LaVoi, page 3155, Table 16.

Conclusion

7. No Claims are allowed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Balls whose telephone number is (571) 272-7997. The examiner can normally be reached on Mon - Fri 8:00am - 4:30pm EST.

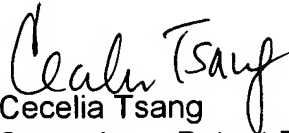
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272-0562. The

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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R. James Balls
Examiner
Art Unit 1625


Cecelia Tsang
Supervisory Patent Examiner
Art Unit 1625